EXHIBIT 12

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF NEW YORK

In Re: Methyl Tertiary Butyl Ether ("MtBE")
Products Liability Litigation

MDL No. 1358
Master File C.A. No.
1:00-1898 (SAS)

This document relates to the following cases:

City of New York v. Amerada Hess Corp., et al.

04 Civ. 3417

EXPERT REPORT OF

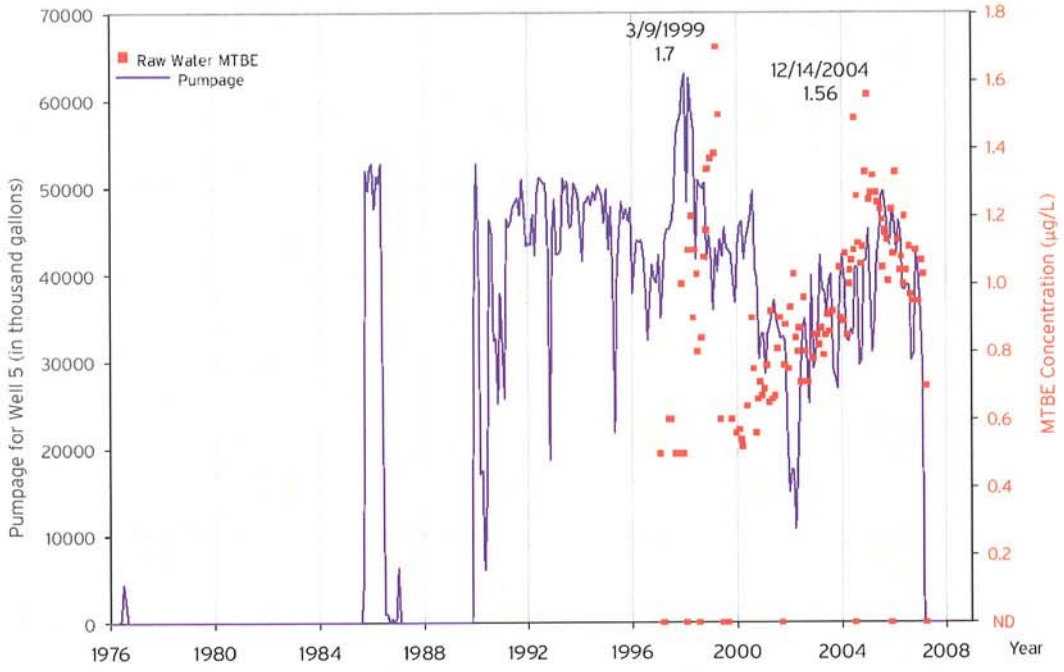
Donald K. Cohen, CPG
Marnie A. Bell, P.E.
Malcolm Pirnie, Inc.
2701 Queens Plaza North, Suite 800
Long Island City, NY 11101

Donald K Cohen — February 7, 2009

Marnie Bell — February 7, 2009

Signature **Date**

Figure 7-16: Well 5 Pumping and MTBE Detection History 1976 to 2008



Source: see **Appendix A** for pumping history and water quality data.

7.3.1.2. Modeling of Well 5 Capture Zone

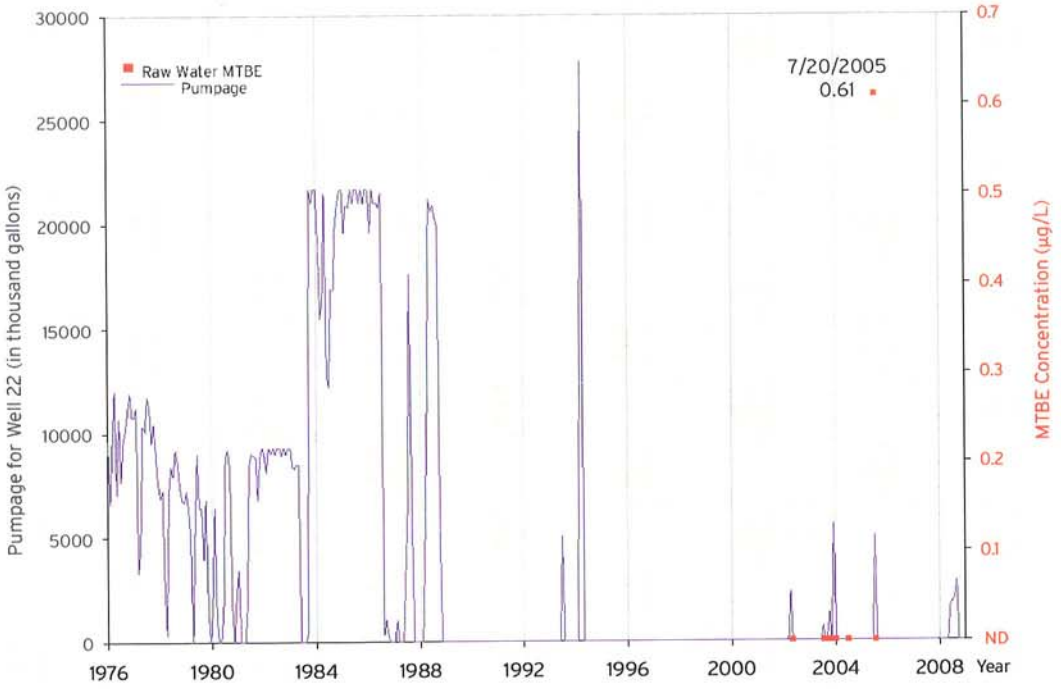
The actual historical pumping record for Well 5 was used in the groundwater flow model and backward particle tracking routine to develop the capture zone around the well. As discussed earlier, the size and shape of the capture zone is dependent on the starting time of the backward particle tracking routine. Because two distinct times of peak MTBE concentration are documented for Well 5, a composite capture zone using those two dates as starting points was developed, as shown on **Figure 7-17**. The size and shape of the individual capture zones accounts for the influence of other wells that were pumping during that same time period.

Also shown on **Figure 7-17** are the locations of reported gasoline releases, USTs, and remediation sites provided by the defendants.

7.3.2.1. MTBE Detection in Well 22

Figure 7-22 shows the pumping history and timetable of MTBE concentration detected for Well 22. MTBE was only detected once in Well 22 on July 20, 2005 at 0.61 µg/L. Only nine raw water samples have been collected from this well and analyzed for MTBE concentrations.

Figure 7-22: Well 22 Pumping and MTBE Detection History 1976 to 2008



Source: see **Appendix A** for pumping history and water quality data.

7.3.2.2. Modeling of Well 22 Capture Zone

Figure 7-23 shows the groundwater flow model generated historical capture zone for Well 22. Since there was only one detection of MTBE in Well 22 on July 20, 2005, the backward particle tracking routine used that date as the sole starting point. The size and shape of the capture zone is based on the actual historic pumping record for Well 22 and surrounding wells in the NYC Groundwater System.

7.3.2.3. Sources of MTBE In and Around Well 22 Capture Zone

Although there are no reported releases from gasoline stations within the historical capture zone of Well 22, MTBE was detected in the well, albeit only once. There are several gasoline stations along Metropolitan Avenue, some of which have reported spills in close proximity to the downgradient edge of the Well 22 capture zone. There are additional gas stations or other reported spill sites upgradient of the Well 22 capture zone.

7.3.2.4. Conclusions and Opinions Regarding Well 22

The fact that MTBE was detected in Well 22 but no reported release sites are within the historical capture zone of the well again emphasizes the potential for impacts from unreported MTBE releases here and throughout the NYC Groundwater System. This finding is consistent with the findings of the NYSDEC study in Nassau and Suffolk Counties.

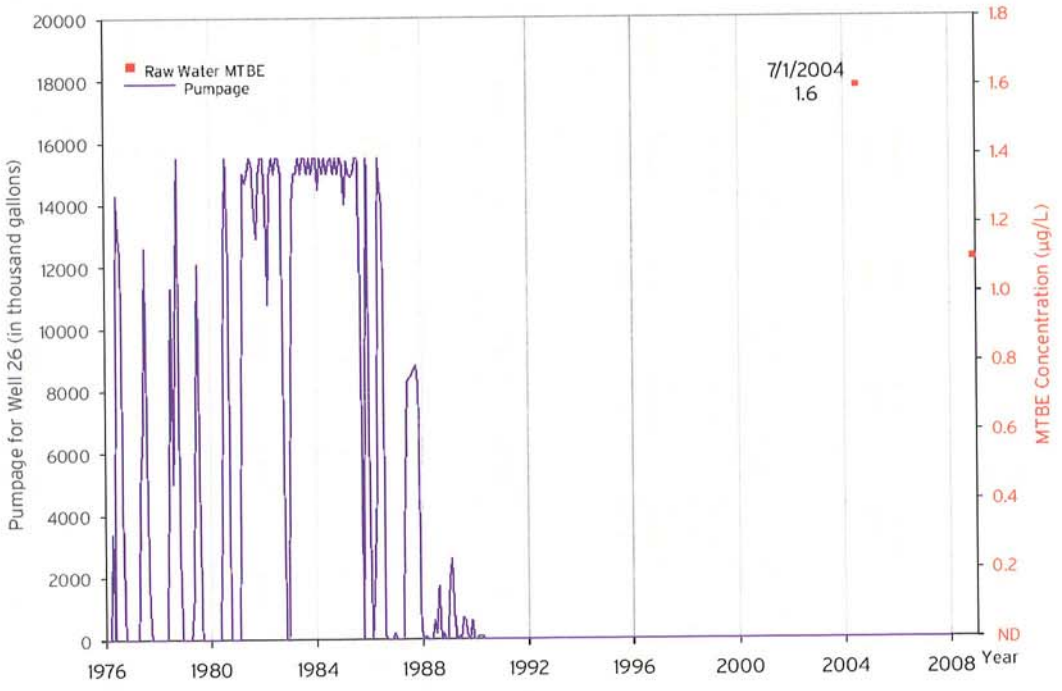
7.3.3. Well 26

Well 26 is located in St. Albans at 113-30 Frances Lewis Blvd. The following sections present the extent to which MTBE has been detected in Well 26 and its potential sources.

7.3.3.1. MTBE Detection in Well 26

Figure 7-24 shows the pumping history and timetable of MTBE concentrations detected for Well 26. Well 26 has not been pumped since 1989. As a result, there are only two sampling events for the well. MTBE was detected at concentrations of 1.6 µg/L on July 1, 2004 and 1.1 µg/L on November 18, 2008.

Figure 7-24: Well 26 Pumping and MTBE Detection History 1976 to 2008



Source: see **Appendix A** for pumping history and water quality data.

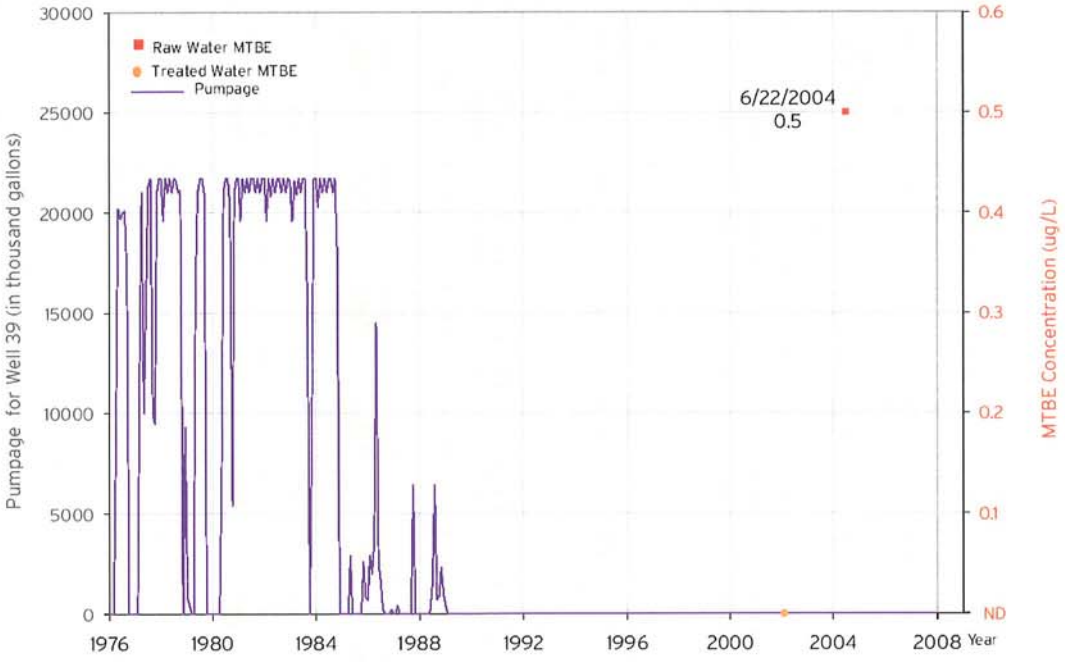
7.3.4. Well 39

Well 39 is located in Queens Village at the northwest corner of Springfield Blvd and 91 Avenue.

7.3.4.1. MTBE Detection in Well 39

Well 39 has not be pumped consistently since prior to 1989. As a result, **Figure 7-26** shows only two samples were taken and analyzed. An MTBE concentration of 0.5 µg/L was detected in the sample from June 22, 2004. It should be noted that the June 22, 2004 sample was collected from a monitoring well located on the Well 39 property because Well 39 was inoperable at the time. The monitoring well (MW-1) is completed to a depth of approximately 66 feet below grade and is screened in the Upper Glacial aquifer. Well 39 is screened from 75 feet to 96 feet below grade. Although the monitoring well is screened at a slightly more shallow depth, it is still indicative of water quality in this portion of the Upper Glacial aquifer, and indicative of water quality that would be drawn into Well 39 upon operation.

Figure 7-26: Well 39 Pumping Timeline and MTBE Detection in Raw Water 1976 to 2008



Source: see **Appendix A** for pumping history and water quality data.

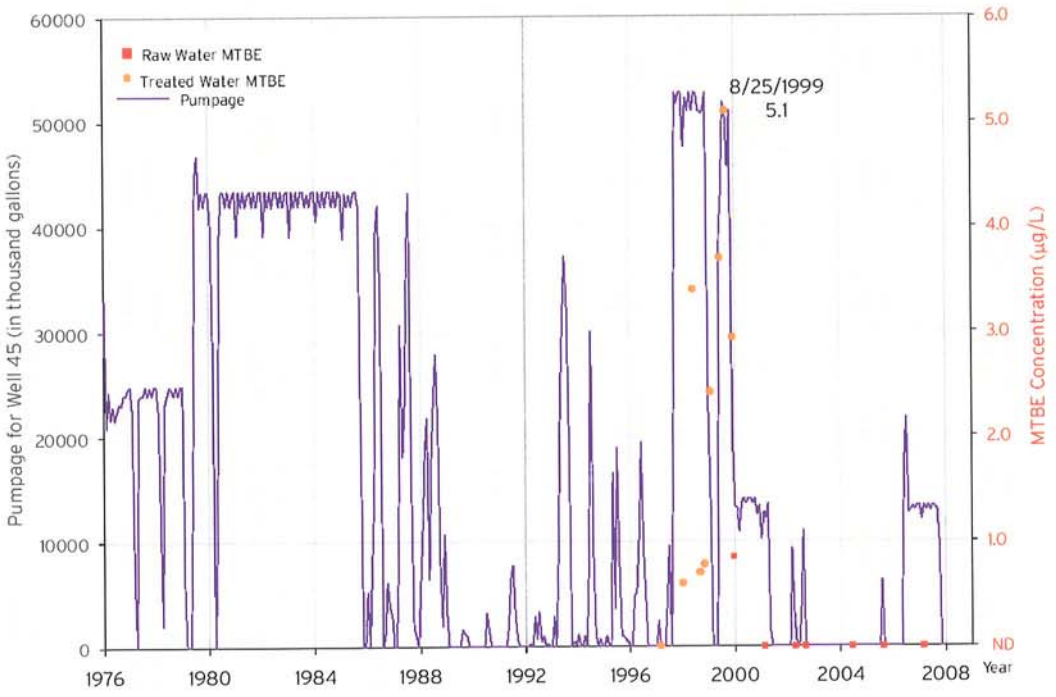
7.3.5. Well 45

Well 45 is located in Richmond Hill at 120 St South of 101 Avenue.

7.3.5.1. MTBE Detection in Well 45

Figure 7-28 shows the pumping history of Well 45 along with the record of MTBE detections in the well. MTBE was first detected on January 7, 1998 at 0.6 µg/L and was last detected on December 16, 1999 at 0.85 µg/L. The highest concentration of MTBE detected during this time period was 5.1µg/L on August 25, 1999. (NYCDEP, 1976). MTBE was detected in 1 of the 8 raw water samples and 8 of the 9 treated water samples.

Figure 7-28: Well 45 Pumping and MTBE Detection History 1976 to 2008



Source: see **Appendix A** for pumping history and water quality data.

**Treated water is treated with chlorine, fluoride, and conditioned with orthophosphate for corrosion control.